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REMARKS

Applicants concurrently file herewith a petition and fee for a three (3) month extension of time.

Claims 1-19 are pending in the application. By this Amendment, claims 1, 5, 8 and 11 are amended to more particularly define the invention. Claims 16-19 are added to recite additional features of this invention.

It is noted that the claim amendments herein or later are not made to distinguish the invention over the prior art or narrow the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein or later should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 1-5, 7 and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ogushi et al. (U.S. Patent No. 6,385,497) in view of Nunn (U.S. Patent No. 6,438,688). Claim 6, 8-12, 14 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ogushi et al. in view of Nunn, and further in view of Crater et al. (U.S. Patent No. 5,805,442).

These rejections are respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

The invention of this application, as recited in claim 1, relates to a remote control system for one or more semiconductor manufacturing apparatuses including a supervisory device which controls the semiconductor manufacturing apparatuses, and a remote operation device that accesses the supervisory device through a communication line. Upon accessing the supervisory device, the remote operation device displays a same screen as that displayed by the supervisory device, and enables the remote device to perform a same operation as those carried out by the supervisory device on the semiconductor manufacturing apparatuses.

The remote operation device replaces operation parameter files of said supervisory device through remote control.

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In conventional systems, manufacturing facilities of semiconductors rely on closed LANs to monitor the manufacturing equipment. As such, the manufacturing facilities, which are often numerous and widespread, could not be efficiently monitored and maintained from a remote location.

Claim 5 recites *inter alia*, “wherein, upon authentication, said remote operation device simultaneously displays a same screen as that displayed on said host device, permitting said remote operation device to remotely control and operate said host device.”

Claim 8 recites *inter alia*, “so that said remote operation device thus authenticated can individually simultaneously display a same screen as that displayed on each of said host devices, permitting said remote operation device to remotely control and operate said host devices.”

Claim 11 recites *inter alia*, “wherein each of said remote operation devices thus authenticated can individually simultaneously display a same screen as that displayed on each of said host devices, permitting said remote operation devices to remotely control and operate said host devices.”

In contrast, this invention provides a remote control system that is able to simultaneously view a monitoring display at a remote manufacturing facility and operate and maintain the manufacturing apparatuses.

II. THE PRIOR ART REJECTION

A. The 103(a) Ogushi et al. and Nunn Reference Rejection

In rejecting claims 1-5, 7 and 13, the Examiner alleges that Ogushi et al. (Ogushi) would have been combined with Nunn to form the claimed invention. Applicants submit that these references would not have been combined and, even if combined, the combination would not teach or suggest each and every element of the claimed invention.

For example, the combination of references, whether considered alone, or in combination, fail to disclose or suggest that “upon accessing said supervisory device, said remote operation device displays a same screen as that displayed by said supervisory device, and enables said remote device to perform a same operation as those carried out by said

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supervisory device on said one or more semiconductor manufacturing apparatuses," as recited in claim 1, or the features recited in independent claim 5.

Ogushi discloses a remote maintenance system for maintaining industrial equipment, such as semiconductor device manufacturing apparatuses, installed at a remote location (col. 1, lines 5-10 of Ogushi). In Ogushi, semiconductor manufacturing facilities 102, 104, 106, are connected to a local host 107. The local host 107 is connected to vendor host 108 at a remote vendor office 101.

The local host 107 obtains status information, such as a trouble alert and notifies the vendor 101 of the problem through the internet (col. 3, lines 51-54). The vendor host 108 monitors whether there is a trouble report, and if notified of a trouble report by the local host 107, looks up the problem in a trouble database, checks whether the same trouble state is registered in the database and provides the registered countermeasure to the local host 107. The local host 107 restores the industrial equipment that is reported to have trouble to a normal state (col. 4, line 37-col.5, line 4). In other words, the vendor host 108 is merely provided with a report from the local host 107.

Accordingly, Ogushi fails to disclose or suggest that "upon accessing said supervisory device, said remote operation device displays a same screen as that displayed by said supervisory device, and enables said remote device to perform a same operation as those carried out by said supervisory device on said one or more semiconductor manufacturing apparatuses."

Nunn discloses a system and method for remotely updating a BIOS using one update file (col. 1, lines 7-10 of Nunn). In Nunn, a BIOS image update file 30 may be sent to a system administrator for locally or remotely updating the BIOS file. However, Nunn also fails to disclose or suggest that "upon accessing said supervisory device, said remote operation device displays a same screen as that displayed by said supervisory device, and enables said remote device to perform a same operation as those carried out by said supervisory device on said one or more semiconductor manufacturing apparatuses." As such, Nunn fails to overcome the deficiencies of Ogushi.

Moreover, as Nunn relates only to updating a PC, Nunn fails to relate to a

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semiconductor manufacturing apparatus. Accordingly, there is can be no motivation or suggestion to make the combination, as proposed in the Office Action.

There are descriptions in Nunn that “[T]he systems administrator would type XYZ/write_hdr_file at the appropriate command line. This action causes the local update program 32 to create a file 36 containing the BIOS image with a header. The file 36 is extracted and used as input to a remote update program 38 while the header on the file 36, is used to identify the file to the remote update program 38. The file 36 is then processed by the remote update program 38 which writes the BIOS image to the client’s computer flash memory 18 thereby completing the remote update.”

It is alleged in the Office Action that it would have been obvious to combine Nunn with Ogushi because Nunn discloses “remotely replacing files in order to save time and reduce confusion.”

To establish a *prima facie* case of obviousness there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Further, the teaching or suggestion to make the claim combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicant’s disclosure (MPEP §2143). Determination of whether the combination is appropriate is based on first determining whether the reference is “within the field of the inventor’s endeavor” and second, if the reference is outside of that field, whether the reference is “reasonably pertinent to the particular problem with which the inventor was involved.” *In re Deminski* 796 F2d 436, 230 USPQ 313 (Fed. Cir. 1986).

As Nunn fails to relate in any way to a semiconductor manufacturing apparatus, there is no motivation or suggestion to combine the reference with Ogushi.

Further, the Examiner’s statement is incorrect since the constitution of the present invention can provide superior results. In the present invention, the remote operation device displays the same screens as that displayed by said supervisory device, and enables the remote operation device to perform the same operations as those carried out by the supervisory device on one or more semiconductor manufacturing apparatuses, and replaces operation

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parameter files of the supervisory device through remote control. Therefore, the mistakes of the replacing operation do not occur. Generally, an operation parameter file means a parameter file (data file) which is used for executing a recipe (program file). When the recipe is not established, for example, upon starting up a semiconductor manufacturing apparatus, although changing the recipe is needed, the present invention can remotely and safely change the parameter file. In a semiconductor manufacturing apparatus, the recipe is executed using many parameter files. Therefore, if the recipe is remotely updated to change one parameter file, the amount of data in one transmission is increased. This is inappropriate when the parameters are frequently changes, for example, upon the setup of the device. On the other hand, if only a file regarding a parameter to be changed is remotely updated, the amount of data in one transmission is decreased. It is preferable even when the parameters are frequently changed.

Additionally, because this invention displays the same screen at a manufacturing facility as at a remote operation device, mistakes that may ordinarily occur during a replacing operation do not occur. Thus, the teaching of Nunn to remotely update a BIOS file does not disclose or suggest this feature.

Because the combination of references fails to disclose or suggest each and every feature recited in the rejected claims, the claims are not obvious. Therefore, Applicants respectfully request the rejection be withdrawn.

B. The 103(a) Ogushi, Nunn and Crater Reference Rejection

In rejecting claims 6, 8-12, 14 and 15, the Examiner alleges that Ogushi and Nunn would have been further combined with Crater to form the claimed invention. Applicants submit that these references would not have been combined and, even if combined, the combination would not teach or suggest each and every element of the claimed invention.

As discussed above, the combination of Ogushi and Nunn fail to disclose or suggest, that "upon accessing said supervisory device, said remote operation device displays a same screen as that displayed by said supervisory device, and enables said remote device to perform a same operation as those carried out by said supervisory device on said one or more

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semiconductor manufacturing apparatuses.”

Applicants submit that because Crater fails to overcome the deficiencies of Ogushi and Nunn, claims 6, 8-12, 14 and 15 are not rendered obvious by the additional reference.

Crater et al. (Crater) discloses an integrated control system comprising one or more controllers each equipped to perform a control function and to gather data (ordinarily from sensors) relevant to the control function (Abstract of Crater). In Crater, a computer 50, having a browser 57 is connected to a network 55 to access web pages 10₁ and 10₂ (Fig. 2, col. 8, lines 4-52). Thus, Crater fails to relate in any way to a semiconductor manufacturing apparatus. As such, there is no motivation or suggestion to combine Crater with either of Ogushi or Nunn.

Moreover, Crater is silent regarding, “upon accessing said supervisory device, said remote operation device displays a same screen as that displayed by said supervisory device, and enables said remote device to perform a same operation as those carried out by said supervisory device on said one or more semiconductor manufacturing apparatuses.”

Accordingly, even if Crater were combined with Ogushi and Nunn, the combination of references fails to disclose or suggest each and feature recited in the rejected claims.

In light of the above, Applicants submit that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention. Therefore, the Examiner is respectfully requested to withdraw this rejection.

IV. CONCLUSION

None of the applied references of record discloses or suggests the features recited in new claims 16-19.

In view of the foregoing, Applicants submit that the pending claims are patentably distinct over the prior art of record and are allowable, and that the application is in condition for allowance.

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Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned attorney at the local telephone number listed below to discuss any other changes deemed necessary for allowance in a telephonic or personal interview.

To the extent necessary, Applicant petitions for an extension of time under 37 CFR §1.136. The Commissioner is authorized to charge any deficiency in fees, including extension of time fees, or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

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